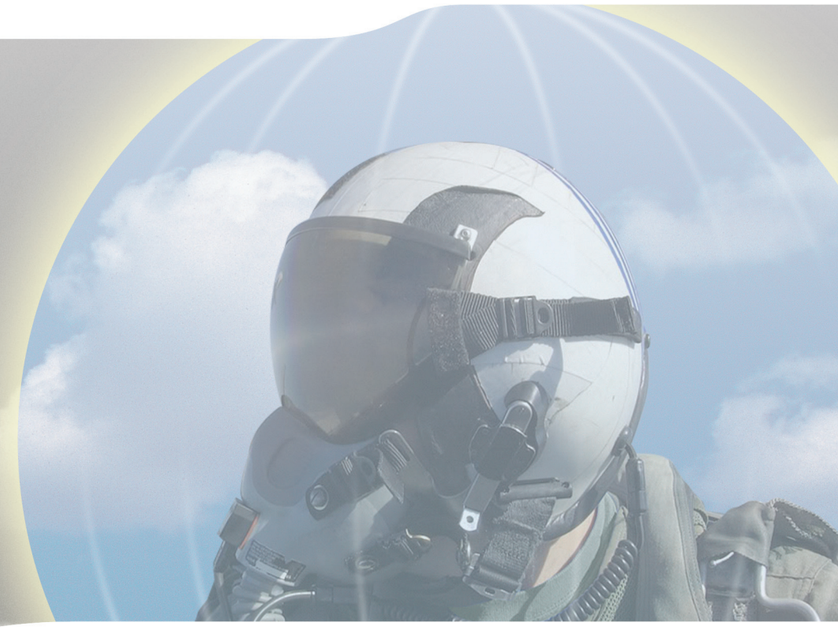
PAWS Family

Cross-Platform Family of IR Passive Airborne Warning Systems



Reference Platforms (Partial List)

- AH-1 Cobra, AH-64D Apache Longbow, AW-101, B-412, CH-47 Chinook, Mi-8/17, Super-Puma, UH-60 Black Hawk
- A-1M, F-15, F-16, F-18
- B-737, B-737-700 BBJ, B-747, B-767 Tanker, B-777, C-130B, C-130H, C-130J, CN-235, Il-76
- Others

Typical Specifications

- Weight < 20 Kg (basic configuration)
- Sensor Dimensions
  - PAWS/C-PAWS ~ 145 x 145 x 260 mm
  - PAWS-2 ~ 102 (Dia.) x 126 mm
- Power Consumption < 200 Watt (basic configuration)
- Fully qualified for tactical/fighter aircraft
- Fully qualified for rotary and fixed-wing (small/large body) aircraft
- Certified for commercial aviation
- Compatible with Terma's PIDS+® Pylon*

Interfaces

- MIL-STD-1553B Multiplex Bus
- RS-232
- RS-422
- ARINC-575
- ARINC-429
- RS-170
- LAN
- Discrete lines

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PAWS Family

Cross-Platform Family of IR Passive Airborne Warning Systems

- **PAWS™**
  for Helicopter/Transporter/VIP Aircraft Protection
- **PAWS-2™**
  for Fighter Aircraft Protection
- **C-PAWS™**
  for Commercial Airliner Protection

Cutting-Edge Family of Solutions Delivers Full Airborne Protection

The PAWS Family of IR-based (Infrared) Passive Warning Systems provides a comprehensive, turn-key solution for airborne platforms, including: fixed and rotary, fast and slow, large and small, military and civilian, covering tactical, fighter, utility, combat, tanker and VIP aircraft, etc. The sophisticated IR Missile Warning Systems (MWS) enhance airborne platform survivability by providing advance warning of the presence of threatening missiles - and by automatic management of all types of applicable countermeasures available onboard.

Benefiting from over 4 decades of Elisra's accumulated operational and technical experience in EW, and its over 2 decades in the area of EO/IR protection, the PAWS family delivers cutting-edge protection against the most challenging threats faced in today's modern battle arenas. Using high-frame-rate streaming IR imagery and advanced ultra-fast signal processing, the systems detect and track incoming missiles, alert the aircrew with audio-visual warning signals in case of a threatening missile, initiate timely flare dispensing, and precisely cue the Directional IR Counter-Measure (DIRCM) towards the approaching missile.

PAWS family of systems operate either as stand-alone, self-contained systems, or as part of a complete EW Defensive Aids Suite (DAS). The systems provide threat information to other EW and/or Avionic systems for centralized PVI/HMI management, as well as for enabling further threat handling.

These systems are installed in a distributed configuration over the aircraft's skin, in a dedicated pod/bay or in a pylon.

Operating as a comprehensive optronic protection suite, the PAWS family's IR-CENTRIC® capabilities extend airborne superiority by maximizing platform safety and survivability and by providing enhanced mission support.

Operational and combat-proven, the PAWS family is in serial production, deployed on a large variety of airborne platforms operated by both Israeli and foreign customers worldwide, and selected by leading aircraft Original Equipment Manufacturers (OEMs) as their baseline protection solution.

Main Features

- Passive IR detection
- Very high sensitivity
- Optimal and adaptable clutter rejection
- Sophisticated discrimination algorithm
- Automatic pilot warning
- Automatic flare dispensing
- Automatic, highly accurate, and ultra-fast DIRCM cueing
- Real-time imaging display supporting Situational Awareness and Panoramic View
- Comprehensive Built-In-Test (BIT)
- Advanced post-mission debriefing
- Modular configuration allowing support for range of platform coverage requirements
- Centralized Situational Awareness Panoramic IR (SAPIR™) video display
- IR CENTRIC®-ready

Performance

- Full panoramic (>100^0 EL * 360^0 all-around) coverage with minimum of 3 sensors
- Full spherical coverage with 5-6 sensors
- Long detection range at all altitudes, scenarios, terrain and weather conditions
- Fast reaction (response) time
- Very high Probability of Detection (PD)
- Very low False Alarm Rate (FAR)
- Time-to-impact estimation
- Multiple and simultaneous threat detection and tracking
- Very high resolution and angular accuracy
- Very fast, accurate and reliable handover to laser DIRCM
- Effective against large variety of guided and unguided hostile fire sources
- Immunized to host platform weapons and flare launches

System Technical Concept

- Reception in IR band within a narrow spectral window
- Background clutter rejection by a combination of real-time filtering techniques
- Point source target detection
- Target acquisition and tracking
- Threat discrimination by angular and intensity temporal analysis
- Multi-spectral filtering (optional)
- Multi-threat prioritization